

W. J. GALBRAITH & J. EAGLESHAM.
 MEANS FOR GENERATING COMBUSTION PRODUCTS UNDER PRESSURE.
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1,163,333.

Patented Dec. 7, 1915.

Fig 2

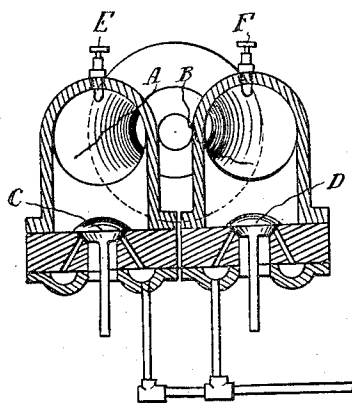
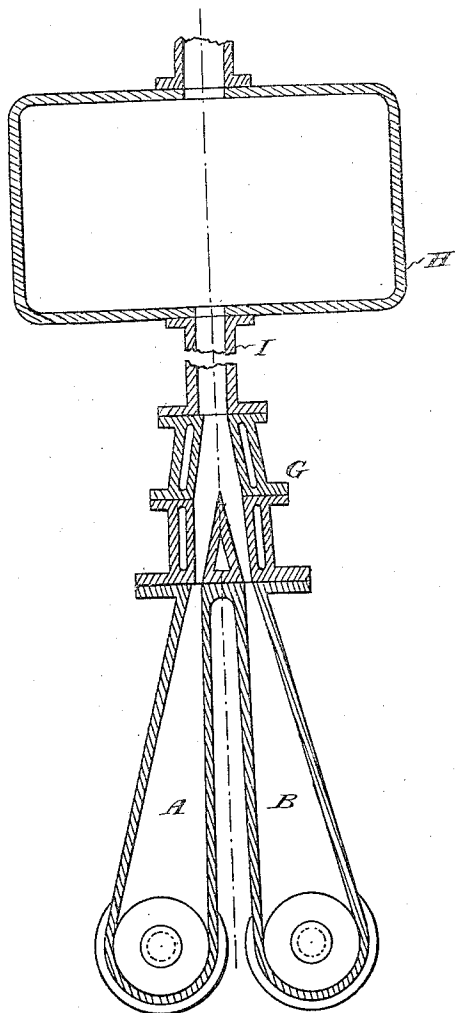


Fig. 1.

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UNITED STATES PATENT OFFICE.

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MEANS FOR GENERATING COMBUSTION PRODUCTS UNDER PRESSURE.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, WILLIAM JOHN GALBRAITH, of 244 Prestwick road, Ayr, Scotland, and JAMES EAGLESHAM, Lainshaw Mill, Stewarton, Scotland, electricians, have invented certain new and useful Improvements in Means for Generating Combustion Products under Pressure, of which the following is a specification.

10 This invention which relates to that type of apparatus having a plurality of chambers for generating combustion products under compression in which the ignited charge of gas and air during expulsion from one of said
15 chambers sets up an inductive effect in another chamber consists of two explosion chambers connected by an ejector device, so that the explosive gases on expulsion from one chamber induce a fresh charge into
20 the other chamber, and the interposition between the combined explosion chambers and the turbine or other motor of a reservoir or accumulator in which during normal working a relatively constant pressure is main-
25 tained which serves to put compression on the charges in the explosion chambers and upon the introduction of new charges.

In order that our invention may be properly understood and readily carried into
30 effect we have hereunto appended one sheet of drawings of which—

Figure 1 is a vertical section of the apparatus for generating combustion products under pressure and embodying our inven-
35 tion. Fig. 2 is a horizontal section of the same hereinafter more fully referred to and described.

In one of its simplest forms the apparatus consists of a pair of combustion or explosion
40 chambers A and B, communicating with one

another and terminating in a nozzle I and pressure box H. The charge of fuel and air is introduced into the aforesaid combustion chambers by the lifting of the valves C, D.

Let it be supposed that the charge of 45 mixed fuel and gas is injected into the chamber A where it is ignited by the sparking or igniting plug E—a sparking plug F being also employed to ignite the gas in chamber B—Fig. 1. The ignited gases or admixture 50 of gases are forcibly expelled forward, and as they pass through the nozzle and induction passage G, draw, or cause a charge to be drawn into the combustion chamber B by means of induction, which charge being 55 ignited a similar dynamic action takes place in chamber B which results in repeating the process by inducing a charge of gases again to enter chamber A. The gas after passing through the induction passage G enters the 60 pressure box, or accumulator H interposed between the explosion chambers A and B and the turbine or other motor not shown.

Claim:

The combination of two combined explo- 65 sive chambers with a motor, of a reservoir or accumulator interposed between the combined explosive chambers and the motor, for maintaining a relatively constant pressure adapted to put compression on the charges 70 in the explosive chambers and upon the introduction of new charges.

In witness whereof we affix our signatures in presence of two witnesses.

WILLIAM JOHN GALBRAITH.
JAMES EAGLESHAM.

Witnesses:

JOHN LIDDLE,
JOHN TRAIN LIDDLE.